

Circulation Element

INSTITUTE OF GOVERNMENTAL
STUDIES LIBRARY

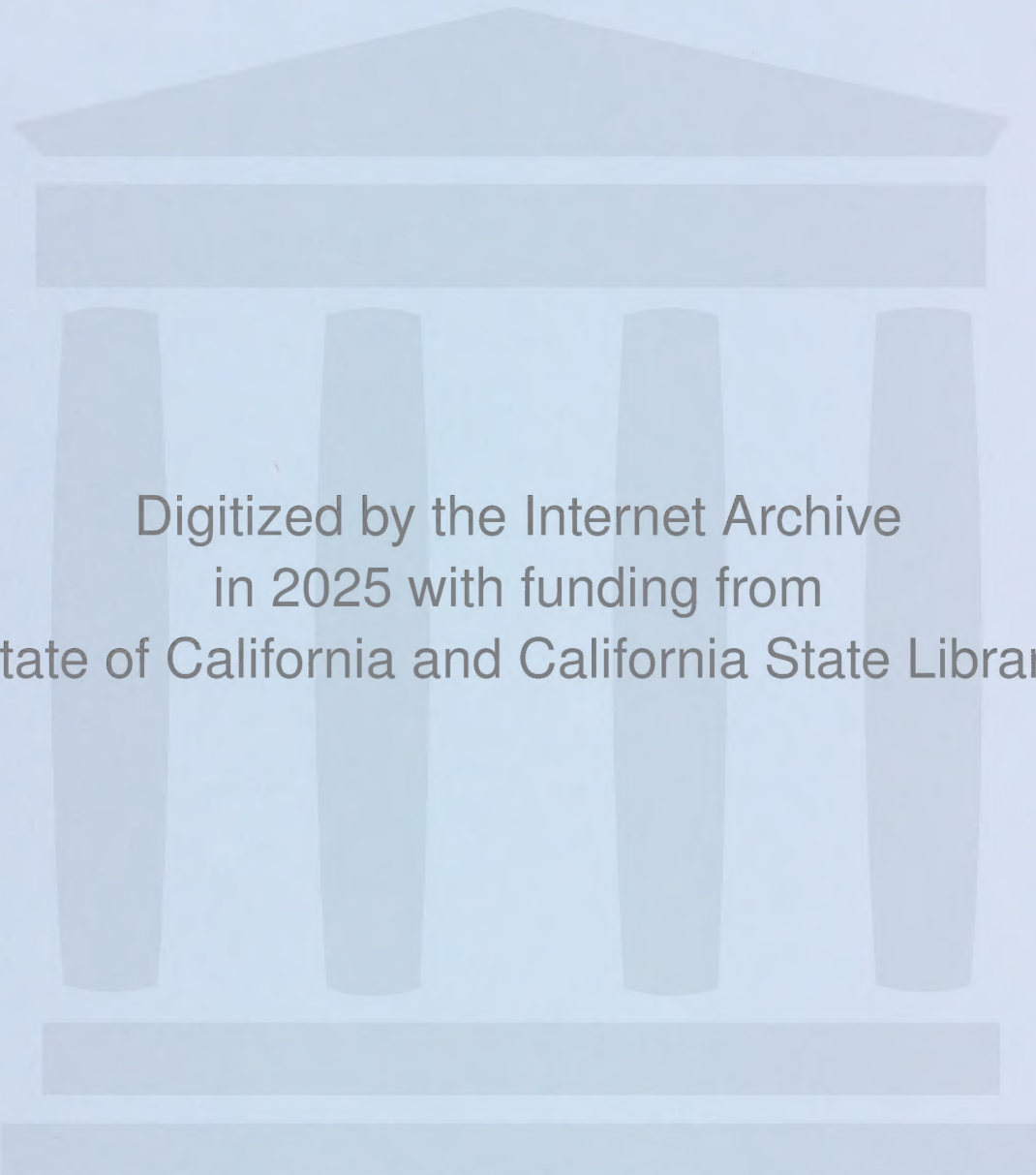
APR 29 1993

UNIVERSITY OF CALIFORNIA

Main Street, Balboa, Cal.



City of Newport Beach



Digitized by the Internet Archive
in 2025 with funding from
State of California and California State Library

<https://archive.org/details/C124908559>

Circulation Element
of the
City of Newport Beach

Adopted by the City Council

Resolution No. 88-101

October 24, 1988

[Reprinted January, 1992,
incorporating GPA 89-1(G) and
GPA 89-2(J)]

Table of Contents

Introduction	Page i
Purpose and Scope	Page 1
Analysis	Page 2
Existing Conditions	Page 2
Future Conditions	Page 3
Master Plan of Streets and Highways	Page 4
Objectives, Policies and Implementation	Page 6
Policy No. 1, Construction of Facilities' Improvements	Page 6
Policy No. 2, Intersection Improvements	Page 14
Policy No. 3, Measures to Reduce Peak Hour Traffic	Page 17
Policy No. 4, Fund Costs of Major Roadway Facility & Intersection Improvements	Page 18
Policy No. 5, Identify & Implement Measures	Page 20
Bikeways	Page 24
Intent	Page 24
Local Needs	Page 24
Regional Needs	Page 24
Classification of Bikeways	Page 25
Objective, Policies and Programs	Page 25
Citizens' Advisory Committee on Bikeways	Page 27
Master Plan of Bikeways Map	Page 28

Tables

Table I, Existing Land Use & Trip Generation Summary	Page 3
Table II, Projected Land Use & Trip Generation Summary	Page 4
Table III, Roadway Classifications & Criteria	Page 5
Table IV, 2010 ICU Summary	Page 7
Table V, Roadway Costs & Funding	Page 22

Other

Map, Master Plan of Streets & Highways	Page 29
--	---------

Introduction

The Circulation Element was first adopted in 1974. In subsequent years the ability of the proposed circulation system to accommodate ever increasing levels of regional traffic was evaluated in conjunction with major projects, but no comprehensive revisions to the Circulation Element were undertaken.

In February 1987, the City embarked upon an ambitious program to revise and update the City's General Plan, with specific emphasis on the Land Use and Circulation Elements. The focus of this program was a desire to develop a circulation system that could accommodate vehicular traffic generated by land use within and without the City at acceptable levels of service.

The process of updating the Circulation Element began with the acquisition of current data as to existing traffic volumes and service levels. This information was evaluated in light of known community goals and objectives that were developed during years of discussion and debate.

The transportation planning firm of Austin-Foust Associates was retained to develop forecasts of traffic volumes and systems sized to accommodate the demand. In addition, this consultant was asked to develop a traffic model, a computer program that would allow constant review and reassessment of the adequacy of the circulation system.

Public input into the process consisted of more than 25 "Outreach Meetings," five public hearings before the Planning Commission and three public hearings before the City Council, all as more fully discussed in the Land Use Element. The result is a Circulation Element that is closely correlated with the Land Use Ele-

ment and represents the best possible balance between roadway size and traffic service levels.

The portion of the Circulation Element relating to bikeways is based on input provided by the Newport Beach Citizens' Advisory Committee on Bikeways.

Purpose and Scope

It is intended that this Element satisfy the State requirement that local General Plans contain a Circulation Element.

Section 65302(b) of the Government Code states in part that local General Plans shall include:

"...a circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan."

The term "correlation" has been construed by the courts to require the Circulation Element, including its major thoroughfares, to be closely, systematically and reciprocally related to the Land Use Element of the General Plan. The correlation requirement is designed to insure the Circulation Element will set forth standards and proposals for addressing the demands on roads and transportation facilities resulting from traffic generated by the growth authorized, and anticipated in the Land Use Element.

The issues that are addressed in this Circulation Element are major roadways and transportation routes; roadway and intersection improvements; estimated costs and funding allocations; and bikeways.

Analysis

This section briefly discusses the source of the data and the method of analysis used in the traffic study prepared by Austin-Foust and Associates (General Plan Traffic Study). The General Plan Traffic Study (attached as an appendix) explains, in detail, the method of analysis by which intersection service levels were forecast for the year 2010 (buildout).

Future traffic service levels are forecast in terms of intersection capacity utilization (ICU). ICU analysis is the most widely accepted method of predicting the extent of traffic congestion at any given intersection in the future. Intersections are a major constraint in any circulation system and are thus the focus of analysis. The "ICU" of an intersection is based on the number of vehicles using all legs of the intersection, the manner in which the vehicles use the intersection (left turns, right turns, etc.) and the capacity of each lane of the intersection.¹

The General Plan Traffic Study has forecast ICU's for 8 groups of intersections. This method of analysis is a more accurate method of forecasting ICU's and significantly reduces the statistical error inherent in computer modeling. Research has determined that the service level (ICU's) of intersections located along a linear traffic corridor or on alternate routes serving traffic moving in the same direction, tend to equalize. Drivers respond to road congestion better than computers. The average "ICU's" in the General Plan Traffic Study represent the most accurate method of forecasting future traffic service levels.

Existing Conditions

The land use inventory, and traffic volumes generated by development on the ground in late 1987, serve as the basis for the following summary of existing conditions within the City of Newport Beach, its sphere of influence, and portions of the Cities of Costa Mesa and Irvine that contribute traffic to the City of Newport Beach circulation system.

1 In 1985, the City of Newport Beach commissioned a study of lane capacity. The study revealed that, during a typical peak hour, approximately 1,850 vehicles per lane travelled through major intersections for each hour of green time. The ICU's in the General Plan Traffic Study are based upon lane capacity assumptions of 1,600 vehicles per lane per hour of green with no yellow time factor.

Table I
Existing Land Use and Trip Generation Summary (1987)

LAND USE	UNITS	AM PK HR TOTAL	PM PK HR TOTAL	TOTAL ADT
Newport Beach				
Residential				
Res-Low (SFD)	16,997 du	15,297	18,697	186,967
Res-Med (SFA)	9,945 du	7,956	9,945	85,527
Apartment	5,396 du	3,238	3,777	35,074
Park Newport	1,306 du	522	653	6,269
Other Residential	1,064 du	618	715	6,184
Motel/Hotel	2,637 rm	2,331	2,088	27,604
Commercial	3,089,300 sf	2,115	7,889	121,418
Restaurant	692,200 sf	895	3,727	50,308
Office	10,897,800 sf	22,887	25,842	166,547
Industrial/R&D	2,554,900 sf	2,708	3,270	19,668
Other	-	1,529	2,802	31,975
 SUBTOTAL		 60,096	 79,405	 737,541
 Other Areas		 63,659	 81,935	 759,498
 TOTAL		 123,755	 161,340	 1,497,039

This inventory of land uses and vehicle trips provides the basis for the trip generation rates used in the General Plan Traffic Study. For example, the inventory disclosed that commercial land use, on average, generates approximately 40 trips per 1,000 square feet of building area. These rates were used to determine traffic volumes generated by future development.

Future Conditions - Year 2010

The Land Use Element of the General Plan describes in detail the types and amount of growth anticipated upon buildout of the City in the year 2010. Trip generation rates derived from the inventory described above were multiplied by the additional growth permitted in each major land use category to determine the additional trips that could result from the growth authorized in the Land Use Element. These additional trips were added to existing volumes to determine ultimate traffic levels on buildout.

The following chart summarizes the major land use categories, the total amount of development anticipated at buildout in the year 2010, the AM and PM peak hour traffic volumes, overall daily traffic volumes at buildout.

Table II
Projected Land Use & Trip Generation Summary (2010)

LAND USE	UNITS	AM PK HR TOTAL	PM PK HR TOTAL	TOTAL ADT	ADT INCREASE
Newport Beach					
Residential					
Res-Low (SFD)	15,535 du	13,982	17,089	170,885	(16,082)
Res-Med (SFA)	15,668 du	12,534	15,668	134,745	49,218
Apartment	7,512 du	4,507	5,258	48,828	13,754
Park Newport	1,306 du	522	653	6,269	-0-
Other Residential	749 du	409	464	4,094	(2,090)
Motel/Hotel	3,472 rm	3,085	2,758	36,37	8,773
Commercial	5,709,300 sf	4,582	16,374	241,597	120,179
Restaurant	1,270,800 sf	2,120	7,072	97,014	46,706
Office	16,154,400 sf	33,197	38,828	263,547	97,000
Industrial/R&D	2,584,400 sf	2,790	3,458	22,156	2,488
Other	-	3,815	4,993	57,264	25,289
SUBTOTAL		81,544	112,616	1,082,776	345,235
Other Areas		109,913	139,872	1,267,245	507,747
TOTAL		191,457	252,488	2,350,021	852,982

In comparing the traffic generated in 1987 with that anticipated in the year 2010, it can be seen that approximately 852,984 (345,235 from within the current City boundaries) new vehicle trips will be added to the system daily. In order to accommodate these additional trips revisions to the City's Master Plan of Streets and Highways are necessary.

Master Plan of Streets and Highways

Incorporated within this Element is a map entitled "Newport Beach Circulation Element - Master Plan of Streets and Highways" which satisfies the state requirement that the Circulation Element contain a map or diagram of the existing and proposed circulation system.

The City of Newport Beach participates in the Orange County Arterial Highway Financing Program, in which the County assumes up to 50% of the cost of major roads shown on the Orange County Master Plan of Arterial Highways. To participate in this program, each City must have a Master Plan of Highways that is mutually satisfactory and in conformance with the plans of the County and all adjacent cities. The City of Newport Beach Master Plan of Streets and Highways satisfies this requirement.

The road classifications used by the City of Newport Beach are the same as used by the County of Orange for its Master Plan of Arterial Highways. The following represents the roadway categories and the criteria applicable to each:

**Table III
Roadway Classifications and Criteria**

<u>Road Classif.</u>	<u>R.ofW. - Feet</u>	<u>Width Curb - Curb Ft.</u>	<u># of Lanes</u>	<u>Median Width-Ft.</u>	<u>Approx. Capacity ADT*</u>
8 Lane Divided	158	Variable	8	14 - 18	60-68,000
Major Augmented	Variable	Variable	6 - 8	Variable	52-58,000
Major	128-134	106 - 114	6	14 - 18	45-51,000
Primary Augmented	Variable	Variable	4 - 6	Variable	35-40,000
Primary	104 - 108	84	4	16 - 20	30-34,000
Secondary	84	64	4	0	20-23,000
Commuter	60-70	40-50	2	0	7-10,000

*(ADT) Average Daily Traffic.

Couplets:

Secondary couplet - 2 lanes for each leg

Primary couplet - 3 lanes for each leg

Major couplet - 4 lanes for each leg

When projected traffic volumes exceed 10,000 VPD, four lane roadways should be considered.

Augmented Major and Primary arterial classifications are intended to indicate roadways which will carry traffic that is at the capacity level for the classification. The standard section will need to be augmented with additional through and/or turning lanes in some locations along the roadway. This may be accomplished by adding right-of-way or by reducing the widths of sidewalk areas, medians, travel lanes and emergency shoulder lanes.

A Commuter Roadway is a two lane collector street that connects to an arterial highway and/or provides a link between two arterials. At intersections a Commuter Roadway may have additional width to provide for turning lanes.

At signalized street intersections, heavy turning movements may require the addition of extra turning lanes in excess of classification widths shown.

"Routes that Require Further Coordination" are roadways on the Master Plan of Streets and Highways where precise alignments, configuration and construction phasing are subject to further study and additional discretionary action.

Objectives, Policies and Implementation

OBJECTIVE

The basic objective is the construction of public transportation facilities which, in conjunction with programs to reduce peak hour traffic, will accommodate vehicular traffic generated by land use within the City of Newport Beach at acceptable levels of service; to reduce, to the extent possible, the impact of summer visitor and tourist travel along Balboa Peninsula, on Balboa Island, and West Newport, and provide a safe, convenient and enjoyable system of bikeways that meet the needs of all cyclists.

POLICIES

The policies and implementation measures described below are intended to accomplish the basic objective of this Element. These policies and measures are not to be considered exclusive efforts the City will undertake to solve transportation problems as they arise, but do constitute the basis for both further analysis and new solutions.

Policy Number 1

Construction of facilities' improvements resulting in a roadway system that is sized and located to accommodate all vehicular traffic generated by existing development and anticipated growth, as well as some regional traffic, at service levels as close to Level of Service D as possible.

DISCUSSION

The General Plan Traffic Study has identified numerous facilities' improvements necessary to accommodate traffic generated by the additional growth authorized in the Land Use Element, as well as some regional traffic. These improvements will, in the vast majority of cases, result in intersections functioning at "Level of Service D" or better. Those intersections which are forecast to exceed LOS-D in the year 2010 do so, in large measure, because of regional traffic (See Table IV).

The intersections which are predicted to function above LOS-D, with few exceptions, are all located in proximity to John Wayne Airport (JWA). The relatively high levels of traffic in this area are a direct result of increased operations at JWA and development outside of Newport Beach. The Master Plan of Streets and Highways described in this Element represents a conscious decision to accept levels of service in the airport area that have been forecast by and focus efforts to improve service levels on those portions of our system less affected by regional traffic.

Table IV - 2010 ICU Summary

Intersection	Newport Beach		Other		Total	
	<u>AM</u>	<u>PM</u>	<u>AM</u>	<u>PM</u>	<u>AM</u>	<u>PM</u>
1. Placentia & Superior	.53	.62	-0-	-0-	.53	.62
2. Superior & PCH	.81	.73	.08	.15	.89	.88
3. Newport & Hospital	.84	.95	.02	.01	.86	.96
4. SB Newport Ramp & Newport	.42	.72	-0-	-0-	.42	.72
5. Newport & Via Lido	.65	.77	-0-	-0-	.65	.77
6. Newport & 32nd	.52	.70	-0-	-0-	.52	.70
7. Riverside & PCH	.71	.68	.08	.11	.68	.79
8. Tustin & PCH	.68	.76	.08	.11	.76	.87
9. MacArthur & Campus	.34	.55	.32	.72	.66	1.27
10. MacArthur & Birch	.52	.49	.31	.28	.83	.77
11. Von Karman & Campus	.31	.51	.47	.42	.78	.93
12. MacArthur & Von Karman	.57	.78	.13	.17	.70	.95
13. Jamboree & Campus	.32	.63	.70	.60	1.02	1.23
14. Jamboree & Birch	.38	.46	.40	.33	.78	.79
15. Campus & Bristol	.51	.60	.35	.63	.86	1.23
16. Birch & Bristol N.	.43	.58	.24	.34	.67	.92
17. Campus & Bristol S.	.83	.42	.46	.47	1.29	.88
18. Birch & Bristol S.	.61	.38	.28	.32	.89	.70
19. Irvine & Mesa	.60	.54	.36	.42	.96	.96
20. Irvine & University	.77	.57	.39	.43	1.16	1.00
21. Irvine & Santiago/22nd	.55	.43	.06	.05	.61	.48
22. Irvine & Highland/20th	.40	.43	.05	.04	.45	.47
23. Irvine & Dover/19th	.58	.58	.05	.04	.62	.62
24. Irvine & Westcliff/17th	.50	.62	.02	.05	.52	.67
25. Dover & Westcliff	.38	.38	.02	.03	.40	.41
26. Dover & 16th	.55	.44	.02	.03	.57	.47
27. Dover/Bayshore & PCH	.78	.59	.07	.12	.85	.71
28. Bayside & PCH	.81	.70	.07	.15	.88	.85
29. MacArthur & Jamboree	.67	.66	.43	.43	1.10	1.09
30. Jamboree & Bristol N.	.37	.65	.08	.14	.45	.79
31. Bayview & Bristol S.	.41	.63	.13	.12	.54	.75
32. Jamboree & Bristol S.	.58	.73	.15	.13	.73	.86
33. Jamboree & Bayview	.58	.68	.17	.10	.75	.78
34. Jamboree & University	.88	.85	.15	-0-	.93	.85
35. Jamboree & Bison	.72	.89	.04	.03	.76	.92

Table IV (Cont.)

<u>Intersection</u>	Newport Beach		<u>AM</u>	Other <u>PM</u>	<u>AM</u>	Total <u>PM</u>
	<u>AM</u>	<u>PM</u>				
36. MacArthur & Bison	.68	.77	.12	.07	.80	.84
37. Jamboree & Ford	.87	.88	.04	.02	.91	.90
38. MacArthur & Ford	.71	.78	.14	.06	.85	.84
39. Jamboree & San Joaquin H.	.67	.72	.04	.04	.71	.76
40. Jamboree & Santa Barbara	.58	.68	.03	.03	.61	.71
41. Jamboree & PCH	.78	.74	.10	.11	.88	.85
42. Santa Cruz & San Joaquin H.	.21	.31	-0-	-0-	.21	.31
43. Santa Rosa & San Joaquin H.	.37	.76	-0-	-0-	.37	.76
44. MacArthur & San Joaquin H.	.60	.77	.09	.04	.69	.81
45. MacArthur & San Miguel	.56	.86	.04	.06	.60	.92
46. Newport Center & PCH	.84	.38	.08	.16	.92	.54
47. Avocado & PCH	.38	.77	.09	.16	.47	.93
48. MacArthur & PCH	.38	.76	.10	.17	.48	.93
49. San Miguel & San Joaquin H.	.41	.81	.03	.08	.44	.89
50. Goldenrod & PCH	.69	.62	.20	.23	.89	.85
51. Marguerite & San Joaquin H.	.41	.63	.04	.05	.45	.68
52. Marguerite & PCH	.60	.49	.21	.14	.81	.63
53. Poppy & PCH	.51	.57	.22	.25	.73	.82
54. 15th & PCH	.34	.46	.19	.11	.53	.57
55. Bluff & PCH	.57	.68	.08	.14	.65	.82
56. SB Newport Ramp & PCH	.62	.70	.08	.11	.70	.81

IMPLEMENTATION

Construct the circulation system described on the map entitled "Newport Beach Circulation Element-Master Plan of Streets and Highways" which is attached as Exhibit 1. The following is a detailed description of each circulation system improvement necessary to complete the system described in the Master Plan, together with specific information as to the location and alignment of the improvement if currently known.

Facility Improvements

1. *Coast Highway from the Santa Ana River to Newport Boulevard.* This project involves the widening to six lanes of this section of Coast Highway.

The future 24-foot widening to provide for the six lanes will occur on the southerly side between the Santa Ana River and 59th Street; from 59th Street to Newport Boulevard the widening will be on the northerly side. Additional widening beyond the 24-foot minimum will be required at intersections to provide turning lanes.

2. *Coast Highway from Newport Boulevard to Dover Drive.* The section of Coast Highway through Mariners Mile carries both local and through traffic and is currently operating at capacity. Widening of this section of Coast Highway to six lanes and a center median with augmented intersections at major cross streets such as Riverside Avenue will accommodate both the local and regional traffic using this corridor.

There is also a considerable amount of bicycle traffic through the intersection of Riverside Avenue and Coast Highway. The bicyclists are generally travelling from Newport Heights to the beach; from Lido Isle and the western areas of the peninsula to Newport Harbor High School or Ensign School; or recreational cyclists travelling through the City either towards Laguna Beach or Huntington Beach. The safety of these bicyclists must be addressed in the final project designs.

A minimum right-of-way width of 112 feet is necessary to provide for the six travel lanes and a center median. The additional 12 feet of width will be provided on the northerly side of Coast Highway. 118 feet of width is required in the vicinity of Riverside Avenue.

3. *Coast Highway from Dover Drive to Jamboree Road.* This section of Coast Highway serves as the only east-west route for the southern part of the City. To carry the forecast traffic demands, this section should be widened to eight lanes from westerly of Dover Drive through Jamboree Road. This will require either the widening of the bridge sidewalk areas or building a separate bridge for the bike lanes.
4. *Coast Highway at Jamboree Road.* In order to accommodate forecast traffic demand at this intersection, a grade separation shall be considered for construction in the future. The precise alignment, roadway width, and design of the project have not been determined. Any grade separation should not increase the grade at the intersection.

5. *Newport Boulevard from 30th Street to 32nd Street.* This section of roadway shall be widened to six lanes.
6. *Newport Boulevard from 32nd Street to Coast Highway.* The widening of Newport Boulevard to five lanes is currently a committed project, with construction to commence in 1989. The roadway should be widened to six lanes, with the construction of the widened bridge across the Newport Channel. Most of the additional right-of-way necessary for the roadway widening has been acquired.
7. *Newport Boulevard at Coast Highway.* This project involves the reconfiguration and reconstruction of the existing ramps and bridge at the intersection of Newport Boulevard and Coast Highway. No specific geometrics are suggested other than a single structure for the interchange, including pedestrian, bicycle, and transit facilities.
8. *Newport Boulevard from Coast Highway to Hospital Road.* It is proposed that this section of Newport Boulevard be widened to provide six lanes.
9. *Jamboree Road from San Joaquin Hills Road to the Newporter Resort.* This project involves widening this section of Jamboree Road to six lanes. Adequate right-of way exists to accomplish this improvement.
10. *Jamboree Road from Bristol Street to Ford Road.* This section of the roadway shall be widened to eight lanes.
11. *Bayview Way/from Jamboree Road to MacArthur Boulevard.* This section of roadway is the extension of Bayview Way in the J.M. Peters project from Jamboree Road to MacArthur Boulevard. This section should be constructed to a width of four lanes in conjunction with the development of adjacent sites. This roadway, which has been designated as University Drive North, shall be officially designated as Bayview Way.
12. *MacArthur Boulevard from Coast Highway to San Joaquin Hills Road.* The following
& shall pertain to MacArthur Boulevard from Coast Highway to San Joaquin Hills Road:
13.
 - A. MacArthur Boulevard between San Miguel Drive and Coast Highway shall be improved to: lower the grade as much as 13 feet; align the road approximately 50 feet west of the existing centerline; install necessary sound walls to mitigate noise; and a landscape plan shall be reviewed and approved by the City Council.
 - B. Two outside through lanes in each direction on MacArthur Boulevard shall be constructed so that additional lanes constructed, when required by the City, will occur towards the centerline of the roadway, between Harbor View Drive and the prolongation of the centerline of Crown Drive.

C. That prior to the construction of through lanes in excess of four for MacArthur Boulevard between Harbor View Drive and a prolongation of the centerline of Crown Drive, the following criteria, at a minimum, shall be met:

- 1) Completion of Pelican Hill Road to Primary Arterial configuration (four lanes, divided), from Coast Highway to the intersection of MacArthur Boulevard.
- 2) An average weekday volume-to-capacity ratio of 1.00 on MacArthur Boulevard in the vicinity of Harbor View Drive. In adopting this criteria relative to the widening of MacArthur Boulevard, a primary purpose in considering this improvement is the reduction of diversion traffic through residential streets in Corona del Mar. It is anticipated that if the average weekday volume-to-capacity ratio on MacArthur Boulevard reached 1.00, diversions to local Corona del Mar streets such as Marguerite Avenue, Poppy Street, and Fifth Avenue would occur.
- 3) Completion of San Joaquin Hills Road to Primary Arterial configuration (four lanes, divided) easterly of Spyglass Hill Road, and connection to Pelican Hill Road.

D. A public hearing shall be conducted by the Planning Commission and City Council to verify satisfaction of the criteria and the desirability of the roadway widening.

14. *MacArthur Boulevard between San Joaquin Hills Road and Ford Road.* This section of MacArthur Boulevard shall be widened to six lanes.
15. *MacArthur Boulevard between Ford Road and SR-73.* This section of MacArthur Boulevard shall be widened to eight lanes.
16. *Irvine Avenue between University Drive and Bristol Street.* In order to accommodate forecast demand, this section of Irvine Avenue shall be widened to six lanes. There is 100 feet of existing right-of-way in this section.
17. *Campus Drive between Bristol Street and MacArthur Boulevard.* To conform to the County Master Plan, this section needs to be upgraded to 6 lanes and is part of the Airport Mitigation Plan.
18. *Birch Street/Mesa Drive from Irvine Avenue to Jamboree Road.* A Secondary arterial (4 lane, undivided) is designated from Mesa Drive at Irvine Avenue to Birch Street at Jamboree Road.

19. *Dover Drive between Cliff Drive and Westcliff Drive.* This section of roadway shall be widened to six lanes.
20. *15th Street between Coast Highway and Bluff Road.* This is a section of roadway that will be constructed in conjunction with the development of the Mobil-Armstrong property in the West Newport area. This roadway will be constructed with four lanes.
21. *15th Street between Bluff Road and Monrovia Avenue.* This is a section of roadway that will be constructed in conjunction with the development of the Mobil-Armstrong property in the West Newport area. This roadway will be constructed with four lanes.
22. *15th Street between Monrovia Avenue and Superior Avenue.* This existing roadway shall be widened to four lanes.
23. *Bluff Road between Coast Highway and 17th Street.* This is a section of roadway that will be constructed in conjunction with the development of the Mobil-Armstrong property in the West Newport area. This roadway will be constructed with four lanes.
24. *Bluff Road between 17th Street and 19th Street.* This is a section of roadway that will be constructed in conjunction with the development of the Mobil-Armstrong property in the West Newport area. This roadway will be constructed with four lanes.
25. *16th Street between Dover Drive and Seagull Lane.* This project involves the widening of this section of the roadway to four lanes.
26. *17th Street from Bluff Road to the Easterly City Limit.* This is a section of roadway that will be constructed in conjunction with the development of the Mobil-Armstrong property in the West Newport area. This roadway will be constructed with four lanes.
27. *19th Street from Bluff Road to the Santa Ana River.* Although this section of roadway is mainly outside the City Limits, the Master Plan of Streets and Highways provides for the construction of four travel lanes.
28. *Placentia Avenue from Superior Avenue to Hospital Road.* This project involves the widening of this section of the roadway to four lanes.
29. *Superior Avenue between Placentia Avenue and Industrial Way.* This project involves only the acquisition of the small sliver of land adjacent to the Mobil Home Park on Superior Avenue to complete the roadway widening to provide shoulder and sidewalk area. All four travel lanes have been completed.

30. *Avocado Avenue from Coast Highway to San Miguel Drive.* This project involves the construction of Avocado Avenue north of Coast Highway to San Miguel at four lanes.
31. *Dover Drive between Irvine Avenue and Westcliff Avenue.* This project involves the widening of this section of the roadway to four lanes, by covering the flood control channel.
32. *22nd Street between Irvine Avenue and Tustin Avenue.* This project involves the widening of this section of the roadway to four lanes.
33. *32nd Street between Newport Boulevard and Lafayette Street.* This project involves the widening of this section of the roadway to four lanes. However, based upon the potential reductions in future development on the Balboa Peninsula, this roadway improvement may not be necessary in the future.
34. *Bison Avenue between MacArthur Boulevard and the San Joaquin Hills Corridor.* Although this section of roadway is outside of the City limits, the Master Plan of Streets and Highways provides for the construction of four travel lanes.
35. *Ford Road between Mac Arthur Boulevard and the San Joaquin Hills Transportation Corridor.* The Master Plan of Streets and Highways provides for the construction of this roadway as a Primary arterial.
 - a. Ford Road shall be realigned northerly of the current alignment.
 - b. An indirect connection(s) shall be made between realigned Ford Road and San Miguel Drive.
 - c. The Master Plan of Streets and Highways shall show the designation of "Routes That Require Further Coordination" for Ford Road and the San Miguel Drive intersection(s) with realigned Ford Road.
36. *San Joaquin Hills Road between Spyglass Hill Road and the San Joaquin Hills Corridor.* This section of roadway is outside of the City limits and the County Master Plan of Arterial Highways provides for the construction of six travel lanes. Traffic projections indicate that a four lane divided roadway will adequately accommodate future traffic, so the roadway has been designated as a Primary Augmented arterial on the City's Master Plan of Streets and Highways.
 - a. San Joaquin Hills Road may be extended to connect to Pelican Hill Road when Pelican Hill Road is fully operational between Coast Highway and Bonita Canyon Road/Mac Arthur Boulevard. Prior to that time, the connection may be made to serve the Newport Beach Downcoast development provided that Pelican Hill Road does not connect to Coast Highway before it connects to Bonita Canyon/Mac Arthur Boulevard.

- b. San Joaquin Hills Road easterly of Pelican Hill Road shall be shown on the Master Plan of Streets and Highways as a "Route That Requires Further Coordination." Until fully noticed public hearings are held, the extension of San Joaquin Hills Road east of Pelican Hill Road shall not occur as per City Council Resolution Nos. 85-11 (Item No. 6) and 88-89 (Item No. 5).

Any future action to change the designation of Ford Road or San Joaquin Hills Road as described in 36 and 37 above shall be the subject of fully noticed public hearings with all affected arterial intersections and links being reviewed as part of the hearings.

- 37. *Pelican Hill Road between Coast Highway and the San Joaquin Hills Corridor.* Although this section of roadway is outside of the City limits but within our Sphere of Influence, the Master Plan of Streets and Highways provides for the construction of sidewalks, bikeways, and three travel lanes in each direction. An extra uphill lane will be provided to accommodate truck and bus traffic.
- 38. *Sand Canyon Avenue between Coast Highway and the San Joaquin Hills Corridor.* This road is to provide sidewalks, bikeways, and two travel lanes in each direction with an uphill lane provided to accommodate truck and bus traffic.

Policy Number 2.

The construction of intersection improvements that are necessary to insure maximum feasible efficiency of the roadway system and service levels as close to LOS-D as possible.

DISCUSSION

Intersections are the major constraint to the efficient operation of the circulation system. The following intersection configuration changes are suggested to augment the major facility improvements to insure traffic service levels no greater than those forecast in this Element and the General Plan Traffic Study.

The forecast traffic volumes are based upon estimates of the possible total development within the City and adjacent areas over the next 22 years. The various intersection improvements listed below are based upon projected Intersection Capacity Utilization analyses in the computerized traffic model, projected to the year 2010. Therefore some of the intersection improvements listed may not be constructed exactly as described herein, or a particular improvement may be shown to be unnecessary over the course of the next 20 years.

It is important to note that the exact geometrics have not been prepared. During the course of the next 22 years, as major development proposals are submitted, the operation of these intersections will be analyzed to determine the need for specific improvements. At the time it is deemed necessary, the intersection geometrics will be prepared.

IMPLEMENTATION

Construct the following intersection improvements:

	<u>Intersection</u>	<u>Improvement</u>
39.	Newport Blvd. & Hospital Rd.	Add one eastbound left turn lane.
40.	Newport Blvd. & 32nd Street	Add a separate southbound right turn lane.
41.	Riverside Dr. & Coast Highway	Add an optional southbound left turn lane, a separate southbound right turn lane, and one eastbound through lane and one eastbound left turn lane
42.	MacArthur Blvd. & Campus Dr.	Add a southbound left turn lane, a westbound left turn lane, a northbound right turn lane, and a separate east bound right turn lane.
43.	MacArthur Blvd. & Von Karman Ave.	Add an eastbound through lane.
44.	Campus Dr. & Bristol St. North	Add one west bound left turn lane.

The intersection of Campus Drive and Bristol Street North has high traffic volumes due to its direct access to SR-73 and the fact that Campus Drive and Birch Street serve as the arterials between the Irvine Business Complex and the high intensity office developments in the northern portion of the City of Newport Beach and SR-73. Because of the particular geometries and traffic volumes and distribution at this intersection, it will be difficult for conventional intersections to carry the forecast traffic. Additional lanes could be provided, however the weave movements between southbound right turn from Campus to SR-73 could make this operationally difficult to achieve. Therefore, it is recommended that this be defined as a special project area with alternative solutions being sought that could range from major intersection upgrading to possible grade-separation.

	<u>Intersection</u>	<u>Improvement</u>
45.	Birch St. & Bristol St. North	Add one southbound through lane and one westbound left turn lane. This may require widening the freeway bridge.
46.	Birch St. & Bristol St. South	Add one northbound through lane and one eastbound through lane. This may require the widening of the freeway bridge.
47.	Irvine Ave. & Mesa Dr.	Add a separate southbound right turn lane, a northbound right turn lane, a westbound left turn lane, and an eastbound through lane.
48.	Irvine Ave. & University Dr.	Add an eastbound through lane.
49.	Dover/Bayshore at Coast Hwy.	Add an eastbound through lane and a westbound through lane (done w/8 lanes).
50.	Jamboree Rd. and Bristol St. N.	Add a northbound ramp on to SR-73.
51.	Jamboree Rd. and Bristol St. S.	Add an eastbound through lane and a northbound ramp on to SR-73.
52.	Jamboree Rd. and Bayview Way	Add a southbound left turn lane and a westbound left turn lane.
53.	Jamboree Rd. and Bison Ave.	Add a westbound left turn lane and a northbound through lane (done w/8 lanes).
54.	MacArthur Blvd. & Bison Ave.	Add a southbound left turn lane, a westbound left turn lane, and a northbound left turn lane.
55.	MacArthur Blvd. and San Joaquin Hills	(No improvement necessary; done w/6 lanes.)

	<u>Intersection</u>	<u>Improvement</u>
56.	MacArthur Blvd. and San Miguel	Add a westbound left turn lane.
57.	San Miguel Dr. and San Joaquin Hills	Add a westbound left turn lane.

Policy Number 3

The City will adopt measures, such as transportation system management plans, which will reduce peak hour traffic and result in levels of service below those forecast in this Element.

DISCUSSION

With the exception of summer beach traffic, our roads are most heavily travelled during the morning and evening commutes. Any reduction in peak hour traffic will result in intersection service levels below those forecast in this Element and the General Plan Traffic Study.² In some jurisdictions, transportation system management plans (TSM) have reduced peak hour traffic by 10-15%. This kind of reduction in peak hour traffic can reduce ICU's by similar percentages.

TSM techniques include ridesharing programs, vanpooling, and flexible work hours. Employers with large work forces can utilize all of these techniques, while smaller companies are typically limited to ridesharing and flex-time programs. The problem with any TSM is to give the property owner or employer an incentive to implement the program so that it works to their economic advantage.

IMPLEMENTATION

1. Collect and study relevant literature and reports, specifically those which discuss the implementation of TSM's in cities with populations similar to that of Newport Beach;
2. Study means and methods, including density bonuses, that would give property owners and employers incentives to implement TSM's; and

2 The levels of service forecast by Austin-Foust are based upon the construction of all additional growth authorized in the Land Use Element. These forecasts represent a "worst case" scenario, since it is extremely unlikely that property owners will exercise their full rights with respect to each parcel in the City.

3. On or before August 1, 1989, submit a comprehensive report to the City Council discussing TSM techniques, the extent to which those techniques may be useful to employers in the City of Newport Beach, and the incentives that can be given by the City of Newport Beach to encourage property owners and employers to develop and implement TSM's.

Policy Number 4

Fund costs of major roadway facility and intersection improvements through gas tax revenues, state, federal and county grants, City ordinances, and privately financed improvements.

DISCUSSION

The total estimated cost to construct the roadway improvements necessary to complete the circulation system is \$81,980,000. The estimated cost of the intersection improvements required to insure maximum efficiency of the system is \$3,045,000. (See Table V).

Financing Resources

The total estimated cost of all roadway and intersection improvements is \$85,025,000, based upon 1988 dollars. These cost estimates include design and engineering fees, the cost of land for additional right-of-way, construction costs, and the cost of signals, other traffic control devices, and environmental mitigation measures.

In the past, the City of Newport Beach has received funding from gasoline tax apportionment, County, State, and Federal funds, developer contributions required by the City's Fair Share Ordinance and the Traffic Phasing Ordinance, and the General Fund. These sources of funding are expected to continue in the future, although somewhat greater reliance may be placed on the City's Fair Share Ordinance than the Traffic Phasing Ordinance.

Of the total estimated cost of \$85,025,000, approximately \$15,250,000 will be funded by other governmental agencies; \$15,400,000 over 22 years from gas tax revenues; \$21,168,750 will be provided by adjacent development; and \$33,106,250 will be generated by the City's Fair Share Fee Program, the Traffic Phasing Ordinance, and the General Fund. Given the constitutional restrictions on appropriations, it is extremely unlikely that General Fund Revenues will be available in substantial amounts to fund roadway improvements. In all probability, greater reliance will be placed upon the Fair Share Ordinance.

The City's Fair Share Ordinance, which was adopted in 1984, establishes a contribution based upon the unfunded cost to implement the Master Plan of Streets and Highways. In essence, this program provides for a fee to be paid in conjunction with the issuance of a building permit. The fees are based upon the total cost of the neces-

sary improvements in the Circulation Element, less the funds anticipated from the various traditional funding sources, divided by the total vehicle trips generated by future allowable development in the City. A prorata share of the total cost is assigned to each new development.

The City of Newport Beach was one of the first cities in the State to require circulation system improvements not adjacent to a project, as a condition of development. The City's Traffic Phasing Ordinance has been in effect since 1978 and has required developer funding of intersection improvements in instances where a proposed project has a direct negative impact on the level of service at a given intersection. Although the Fair Share Ordinance provides the funding mechanism required to assure the construction of the roadways included in Master Plan of Streets and Highways ultimately, it is also desirable to phase development with the construction of these facilities in order to maintain a level of traffic service that is within the limits predicted in this Element. The City should, by ordinance, control the phasing of circulation system improvements with development, and to do so in a manner consistent with predicted levels of service. However, the density and intensity limits imposed by the Land Use Element, in concert with the Fair Share Ordinance, tend to insure that transportation facilities will be constructed in phase with additional development. Moreover, growth limits in the Land Use Element will reduce the extent to which a development phasing ordinance acts as a funding mechanism, with greater reliance placed on the Fair Share Ordinance.

Fair Share and Phasing Ordinances should be consistent with one another to insure the City receives full fees and that property owners receive credit for any master plan improvement required as a condition to project approval. Property owners should be encouraged to jointly fund, and construct in advance, major circulation system improvements which may be required of more than one developer or required in subsequent phases of the project. However, situations may arise where Phasing Ordinance requirements exceed Fair Share Fees and, in such cases, the property owner shall have the option of making the required improvements with no guarantee of reimbursement.

Periodically, the City Council shall review the Fair Share Fee Ordinance, reassess the unfunded cost of required improvements and increase or decrease required Fair Share Fees as appropriate.

Another valuable tool that the City utilizes is to require the dedication of needed right-of-way in conjunction with a subdivision map at the time a project is approved. When appropriate, the developer is also required to pay for the actual roadway improvements adjacent to a site prior to the issuance of permits.

The City Council shall, during the annual budget review, determine the projects that remain to be constructed to complete the Master Plan of Streets and Highways. The projects to be funded in the next fiscal year shall be determined by analyzing current or immediate needs in the circulation system, as well as available financing from the

county, state and federal governments, developer contributions to either the Fair Share Program or dedications and improvements in conjunction with specific developments, and the City's General Fund.

IMPLEMENTATION

1. The City shall continue to utilize gas tax revenues to fund circulation system improvements necessary to complete the Master Plan of Streets and Highways;
2. The City shall continue to actively seek federal, state and county assistance in funding circulation system improvements necessary to complete the Master Plan of Streets and Highways;
3. The City shall maintain the Fair Share Traffic Contribution Ordinance and amend the ordinance as necessary to insure the required fees will provide substantially all the otherwise unfunded costs of completing the Master Plan of Streets and Highways;
4. Maintain and/or modify as necessary an ordinance which will help insure that circulation system improvements are constructed in phase with the additional growth authorized in the Land Use Element; and
5. The City Council shall, during annual budget review, establish a priority of projects to be funded in each fiscal year based upon current need and available funding.

Policy Number 5

Identify and implement measures to reduce the impact of high volume summer traffic on persons living along and around the beach and bay.

DISCUSSION

For many years the City has experienced extremely high volumes of traffic during the summer, especially on weekend days. At times, congestion resulting from these high traffic volumes creates a "gridlock" on surface streets on, and leading to, the Balboa Peninsula. The problem was first studied in 1968 and periodically evaluated since that time. Public input during the process leading to the adoption of this Element has focused on the need to again evaluate even partial solutions to this long standing problem. Accordingly, the City commits to further study of the proposals outlined in the Local Coastal Program, as well as continued implementation of certain enforcement practices that provide some relief to residents during the most congested times.

IMPLEMENTATION

1. The City shall continue to study, and implement if found feasible, the circulation policies and practices described in the Land Use Plan of the Local Coastal Program; and
2. The City shall continue the practice of providing additional through lanes on major streets for residents and persons with business in the area, to the extent permitted by law and consistent with the policy of not restricting the public's access to coastal resources.

Table V - Roadway Costs and Funding

<u>Proj No.</u>	<u>Location</u>	<u>Proposed Improvement</u>	<u>Total Cost {7}</u>	<u>Committed Other Agencies</u>	<u>Adjacent Dev.</u>	<u>Public & Fair Share</u>
1	Coast Hwy (SA River to Newport)	widen to 6 lanes	8,500,000	7,500,000		1,000,000
2	Coast Hwy (Newport to Dover)	widen to 6 lanes	12,250,000		2,000,000	10,250,000
3	Coast Hwy (Dover to Jamboree)	widen to 8 lanes	3,000,000			3,000,000
4	Coast Hwy (Bayside to Jamboree)	widen to 6 lanes	8,085,000	6,500,000		1,585,000
5	Coast Hwy/Jamboree (intersection)	grade separation	4,000,000			4,000,000
6	Newport (30th to 32nd)	widen to 6 lanes	1,500,000			1,500,000
7	Newport (32nd to Coast Hwy)	widen to 6 lanes	2,650,000	1,250,000		1,400,000
8	Newport/Coast Hwy (intersection)	new grade separation	5,000,000			5,000,000
9	Newport (Coast Hwy to hospital)	widen to 6 lanes	500,000			500,000
10	Jamboree (SJH Rd to Newporter)	widen to 6 lanes	1,030,000		880,000	150,000
11	Jamboree (Bristol to Ford)	widen to 8 lanes	2,000,000			2,000,000
12	Bayview (Jamboree to MacArthur)	build 4 lanes	825,000		425,000	400,000
13	MacArthur (Coast Hwy to San Miguel)	widen to 6 lanes	2,500,000		1,250,000	1,250,000
14	MacArthur (San Miguel to SJH Road)	widen to 6 lanes	1,800,000		1,500,000	300,000
15	MacArthur (SJH Road to Ford)	widen to 6 lanes	5,000,000		1,000,000	4,000,000
16	MacArthur (Ford to SR-73)	widen to 8 lane	City of Irvine			
17	Irvine (University to Bristol) {1}	widen to 6 lanes	650,000			650,000
18	Campus (Bristol to MacArthur)	widen to 6 lanes	Orange County			
19	Birch/Mesa (Irvine to Bristol){2}	widen to 4 lanes	1,200,000		600,000	600,000
20	Dover (Cliff to Westcliff)	widen to 6 lanes	1,700,000		850,000	850,000
21	15th (Coast Hwy to Bluff)	construct 4 lanes	990,000		990,000	
22	15th (Bluff to Monrovia)	construct 4 lanes	990,000		490,000	500,000
23	15th (Monrovia to Superior)	widen to 4 lanes	1,270,000			1,270,000
24	Bluff (Coast Hwy to 17th)	construct 4 lanes	2,200,000		1,400,000	800,000
25	Bluff (17th to 19th)	construct 4 lanes	1,375,000		1,000,000	375,000
26	16th (Dover to Seagull)	widen to 4 lanes	200,000			200,000
27	17th (Bluff to E City limit)	construct 4 lanes	245,000		183,750	61,250
28	19th (Bluff to SA River) {3}	construct 4lanes	8,000,000		7,700,000	300,000
29	Placentia (Superior to Hospital)	widen to 4 lanes	450,000			450,000
30	Superior (Placentia to Industrial)	complete 4 lanes	500,000			500,000
31	Avocado (Coast Hwy to San Miguel)	construct 4 lanes	900,000		900,000	
32	Dover (Irvine to Westcliff)	widen to 4 lanes	1,650,000			1,650,000
33	22nd (Irvine to Tustin)	widen to 4 lanes	855,000			855,000
34	32nd (Newport to Villa Way)	widen to 4 lanes	65,000			65,000
35	Bison (MacArthur to SJH Corridor)	construct 4 lanes	Irvine			
36	Ford (San Miguel to E City boundary)	widen to 4 lanes	Irvine			
37	Ford (E City boundary to SJH Corr.)	construct 4 lanes	Irvine			
38	SJH Road (Spyglass to SJH Corr.)	construct 6 lanes	County			
39	Pelican Hill (Coast Hwy to SJH Corr.)	construct 6 lanes	County			

Table V - Roadway Costs and Funding - (Cont.)

<u>Proj. No.</u>	<u>Location</u>	<u>Proposed Improvement</u>	<u>Total Cost {7}</u>	<u>Committed Other Agencies</u>	<u>Adjacent Dev.</u>	<u>Public & Fair Share</u>
40	Sand Canyon (Coast Hwy to SJH Corr.)	construct 4 lanes	County			
41	Newport & Hospital	add EBL	85,000			85,000
42	Newport & 32nd {4}	add NBT	{665,000}			
		separate SBR				
43	Riverside & PCH {4}	add EBT	{1,500,000}			
		add optional SBL				
		separate SBR				
		add EBL				
44	Tustin & PCH	add EBT	included w/Riverside			
45	MacArthur & Campus	add SBL, WBL & NBR	385,000			385,000
		separate EBR				
46	MacArthur & Von Karman	add EBT	100,000			100,000
47	Campus & Bristol (N)	add WBL	50,000			50,000
48	Birch & Bristol (N) {5}	add SBT & WBL	1,100,000			1,100,000
49	Birch & Bristol (S)	add NBT & EBT	included w/North			
50	Irvine & Mesa	add SBT & NBT	390,000			390,000
		separate SBR & NBR				
		add WBL & EBT				
51	Irvine & University	add EBT	25,000			25,000
52	Dover/Bayshore & PCH	add EBT & WBT	305,000			305,000
53	Jamboree & Bristol (N) {6}	NB ramp to Route 73	{4,000,000}			
54	Jamboree & Bristol (S)	add EBT	part of North			
		NB ramp to Route 73				
55	Jamboree & Bayview	add SBL, WBL & WBT	200,000			200,000
56	Jamboree & Bison	add WBL & NBT	55,000			55,000
57	MacArthur & Bison	add SBL, WBL & NBL	255,000			255,000
58	MacArthur & SJH Road {4}	add SBT	{600,000}			
59	MacArthur & San Miguel	add SBT & NBT	60,000			60,000
		add WBL				
60	San Miguel & SJH Road	add WBL	35,000			35,000
<hr/> <i>TOTAL (all improvements)</i>			<i>\$84,925,000</i>	<i>\$15,250,000</i>	<i>\$21,168,750</i>	<i>\$48,506,250</i>

Footnotes:

- {1} Does not include work in County.
- {2} County Redevelopment Agency will pay public share.
- {3} Includes bridge; County will pay public share .
- {4} Part of roadway link project.
- {5} Includes FWY bridge widening.
- {6} Orange County.
- {7} Numbers in {brackets} not included in total.

Bikeways

Intent

The City of Newport Beach favors the use of bicycles both for transportation, to mitigate traffic levels, and for recreation to promote health and fitness.

Local Needs

The needs of bicyclists will vary with the function of the trip and the speed of the rider. In addition, children riding bicycles for any purpose will have special needs in terms of safety.

Those residents who use bicycles daily as their primary means of transportation are concerned with utilizing the most convenient and direct route available to reach their destination. Consequently, there is a general aversion to any significant out-of-direction travel. Inconveniently situated bikeways will not normally be used. Studies have shown one to three blocks out of the direction of travel is about the limit, depending upon the distance to be traveled. These bicyclists normally will select a route along a primary or a major highway. In contrast, the recreational rider might choose a route for its scenic interest such as a harbor view or for its open space character. Some recreational riders prefer to ride on a bike trail separated from vehicular traffic. Thus, it is necessary to provide bikeways for bicyclists along major transportation corridors as well as residential and scenic areas.

Fast cyclists ride at 12-25 miles per hour. They are usually experienced riders, and mix poorly with pedestrians, children, and recreational cyclists because of their speed. Slower cyclists ride at average speeds of 8-12 miles per hour. They mix well with child cyclists; only the slowest cyclists mix well with pedestrians, but poorly with motor vehicles. It is thus necessary to provide bikeways which separate faster cyclists from pedestrian travel and children, integrating bicycle travel more closely with vehicular traffic, and bikeways which separate slower cyclists from motor vehicle traffic. Children would be expected to utilize the latter routes.

Regional Needs

Several regional bikeways pass through the City of Newport Beach. These bikeways provide alternate circulation routes and access to areas of interest on a regional basis. Bikeways are an important component of the local recreation and transportation spectrum. Some potential sites have been identified as those which are appropriate for bikeways or have already been designated to be served by such a trail. The City can work closely with regional and other local governments to coordinate regional bikeway connections to local bikeways and to popular destinations for bicyclists which are located in the City.

Classification of Bikeways

Bikeway is the term to designate all facilities which provide for bicycle travel. The Master Plan of Bikeways include various types of facilities to provide for both transportation and recreation cyclists, faster and slower cyclists, and children. In order to serve varying needs, the City of Newport Beach provides the following types of facilities:

1. **Bicycle Lane.** A lane in the street, normally the parking lane, or a separate lane, designated for the exclusive or semi-exclusive use of bicycles. Through travel by motor vehicles or pedestrians is not allowed, vehicle parking may or may not be allowed. Crossflow by motorists to gain access to driveways and parking facilities is allowed. Separation from the motor vehicle travel way is normally by a painted solid stripe. Bicycle lanes and bicycle routes together are also known as Class 3 bicycle trails.
2. **Bicycle Route.** A shared right-of-way for bicycle operation, whether or not it is specified by signs or markings. All main streets and highways by authority of the California Vehicle Code include bicycle routes as defined herein. Bicycle lanes and bicycle routes together are also known as Class 3 bicycle trails.
3. **Bicycle Trail.** A pathway designated for the use of bicycles which is physically separated from motor vehicle traffic. Pedestrian traffic may or may not be excluded. Bicycle trails are also known as Class 1 bicycle trails.
4. **Backbone Bikeway.** Backbone bikeways are major through bikeways, as shown on the Master Plan of Bikeways. They are primarily on major roads. Backbone bikeways may connect to regional trails, as shown in the Master Plan.
5. **Secondary Bikeway.** Secondary bikeways connect to backbone trails and serve cyclists and children riding to and from school. Secondary bikeways may also be a bicycle lane, route, or trail.

Objective, Policies, and Programs

Objective:

To promote bicycling for transportation and recreation in and around Newport Beach.

Policies:

1. To provide a safe, convenient, and enjoyable system of bikeways that meets the needs of all bicyclists, including children and adults, fast and slow bicyclists, and functional and recreational cyclists.

2. The City shall insure implementation of a bikeway system to encourage cycling as a alternative mode of transportation consistent with the Master Plan of Bikeways.
3. Bikeways shall be developed in recognition of the rights and safety of pedestrians.

Programs:

1. The Master Plan of Bikeways (page 29 below) shall be implemented as follows:
 - a. Bicycle lanes shall be included on all streets and highways designated as backbone bikeways and considered on streets and highways designated as secondary bikeways in conjunction with street and highway improvements when feasible and consistent with the City's ability to do so. At major intersections, consideration shall be given to providing space and signal detection modifications for bicyclists to negotiate through and turning movements.
 - b. Bikeways shown on the Master Plan of Bikeways shall be developed consistent with the City's ability to do so.
 - c. Careful consideration shall be given to linkage of schools and residences in the formulation of plans for individual bikeways.
 - d. Appropriate bikeway improvements may be required as a condition of development approvals.
 - e. The City will work with appropriate agencies for development of connecting bikeways.
 - f. Bikeways shall be developed as bike trails when the opportunity exists and is feasible.
 - g. Bikeways shall be developed to link recreational areas where feasible.
 - h. Bikeways shall be developed to take advantage of scenic views when feasible.
2. The City intends to promote bicycle use by commuters, shoppers, beach-goers, etc., to help minimize auto traffic, by providing bike lanes (see above) and by providing and encouraging businesses and employers to provide:

- a. Secure bike parking, including bike lockers;
 - b. Clothes lockers and showers for employees.
3. School and other safety programs by the Newport Beach Police Department will be continued.
4. When construction or repairs necessitate lane closures, every effort will be made to provide room for cyclists as well as for motor vehicles.
5. When possible, bikeways and walkways will be separated.

IMPLEMENTATION

Bikeway projects could be financed using the City's General Fund or SB 821 Funds. SB 821 Funds are of state origin and are disbursed by the Orange County Transportation Commission (OCTC). They are allocated for bikeway projects, including but not limited to signs, striping, staging areas, bridges, and bike lanes. Candidate projects must be part of an adopted plan. The funds are disbursed annually. 50% of the County's funds are allocated on a population basis. The remaining 50% are discretionary funds granted after a prescribed nomination process and technical evaluation.



Citizens' Advisory Committee on Bikeways

The Citizens' Advisory Committee on Bikeways should be directed to:

1. Review planned expansions or changes to the City's bikeway network for advisory input to the Public Works Department and the City Council.
2. Research bikeway implementation, education, and safety techniques, maintain a record of bicycle accidents, and collect available literature on bicycle safety.
3. Report to the City Council annually on findings and progress in expanding the bikeway network.
4. Coordinate with bikeway committees in adjoining communities.
5. Develop public information materials as directed by the City Council.

Newport Beach General Plan

Master Plan of Bikeways

- | | |
|---|-------------------|
|  | BACKBONE HIGHWAY |
|  | CONNECTOR HIGHWAY |
|  | REGIONAL TRAIL |

THE

EXHIBIT

5



CITY OF NEWPORT BEACH

CIRCULATION ELEMENT

MASTER PLAN OF STREETS & HIGHWAYS

Adopted by City Council
October 24, 1988

AMENDMENTS APPROVED BY CITY COUNCIL

AMEND. NO.	DATE	RES. NO.
4	07-22-74	8314
5	07-22-74	8315
9	12-09-74	8396
23 (PORTION)	03-10-75	8448
23 (PORTION)	03-24-75	8458
77-1-B	03-28-77	9035
78-1-C	08-14-78	9411
79-2	12-06-80	9933
81-2-F	02-11-85	85-7
82-1	10-24-83	83-104
84-1	09-24-84	84-114
85-1-B	07-14-86	86-55
86-2-A	07-14-86	86-57
87-1-E-1	09-28-87	87-146
89-2-J	09-10-90	90-86
90-2-B	09-10-90	90-87



U.C. BERKELEY LIBRARIES



C124908559

